

Revision number: 2 Revision date: 10/06/2014

1. IDENTIFICATION

Product name: Product code: N-Ethylheptylamine E0780

For laboratory research purposes.

Not for drug or household use.

TCI AMERICA

SAFETY DATA SHEET

Product use: Restrictions on use:

Company: TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Eye Damage/Irritation [Category 1] Flammable Liquids [Category 3] Skin Corrosion/Irritation [Category 1C]

Signal word:

Danger!

Hazard Statement(s):

Causes serious eye damage Causes severe skin burns and eye damage Flammable liquid and vapor

Pictogram(s) or Symbol(s):

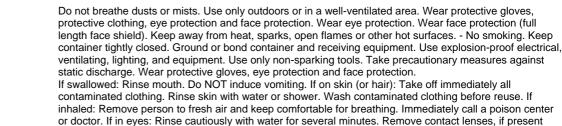


Precautionary Statement(s): [Prevention]

[Response]

[Storage] [Disposal] Page 1 of 6

Emergency telephone number: Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department:** TCI America Environmental Health Safety and Security +1- 503-286-7624



inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish. Store locked up. Store in a well-ventilated place. Keep cool.

Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

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3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substance/Mixture: Components: | Substance N-Ethylheptylamine |
|-----------------------------------|----------------------------------|
| Percent: | >98.0%(GC)(T) |
| CAS Number: | 66793-76-8 |
| Molecular Weight: | 143.27 |
| Chemical Formula: | C ₉ H ₂₁ N |

4. FIRST-AID MEASURES

| Inhalation: | Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
|---|--|
| Skin contact: | For severe burns, immediate medical attention is required. Immediately call a poison center or doctor. Remove and wash contaminated clothing before re-use. Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| Eye contact: | IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Eye contact with vapors or substance may cause severe injury, burns, or death. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| Ingestion: | Do not induce vomiting with out medical advice. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| Symptoms/effects: | |
| Acute: Delayed: | Pain. Redness. No data available |
| Immediate medical attention: | WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is corrosive. For severe burns, immediate medical attention is required. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| 5. FIRE-FIGHTING MEASURES | |
| Suitable extinguishing media: | Dry chemical, CO_2 or water spray. Consult with local fire authorities before attempting large scale fire fighting operations. |
| Specific hazards arising from the cher | |
| Hazardous combustion products: Other specific hazards: | These products include: Carbon oxides Nitrogen oxides Closed containers may explode from heat of a fire. |
| Special precautions for fire-fighters: Use water spray or fog; do not use straig | ht streams. Dike fire-control water for later disposal; do not scatter the material. CAUTION: All these products |

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient. Do not use straight streams. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Move containers from fire area if you can do it without risk. **Special protective equipment for fire-fighters:**

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Use sparkproof tools and explosion-proof equipment. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

| 6. ACCIDENTAL RELEASE MEASURES | | |
|--------------------------------|--|--|
| Personal protective equipment: | Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile). | |
| Emergency procedures: | Isolate area until gas has dispersed. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed. | |

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). All equipment used when handling the product must be grounded. Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

| 7. HANDLING AND STORAGE | |
|--------------------------------|---|
| Precautions for safe handling: | Do NOT breath gas, fumes, vapor, or spray. Manipulate under an adequate fume hood. Avoid contact with skin and eyes. Keep away from heat and sources of ignition. Use explosion-proof equipment. Use only non-sparking hand tool when handling this product. Ground all equipment containing material. Take measures to prevent build up of electrostatic charge. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition. |
| Conditions for safe storage: | Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Store and use away from heat, sparks, open flame, or any other ignition source. Store locked up. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. |
| Storage incompatibilities: | Acids, Bases, Store away from oxidizing agents |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No data available

Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

| Respiratory protection: | Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. |
|---------------------------|--|
| Hand protection: | Wear protective gloves. |
| Eye protection: | Splash goggles. |
| Skin and body protection: | Lab coat. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Color: Odor: Odor threshold:

Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity:

Partition coefficient: n-octanol/water (log Pow) Liquid Clear Colorless - Almost colorless No data available No data available

No data available

No data available

No data available

No data available

181°C (358°F)

0.77

pH: Vapor pressure: Vapor density: Dynamic Viscosity:

Evaporation rate: (Butyl Acetate = 1) No data available No data available No data available No data available

No data available

N-Ethylheptylamine

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| 9. PHYSICAL AND CHEMIC Flash point: | No data avai | lable | Autoignition ter | | o data available |
|--|-------------------|--------------------------------|--|--|-------------------------------------|
| lammability (solid, gas): | No data avai | lable | Flammability or Lower | explosive limits: No data available | e |
| | | | Upper | No data availabl | e |
| Solubility(ies): | | | | | |
| 10. STABILITY AND REACT | ΊνΙΤΥ | | | | |
| Reactivity: | Not / | Available. | | | |
| Chemical Stability: | | le under recor | nmended storage conditions | (See Section 7) | |
| Possibility of Hazardous React Conditions to avoid: | Avoi | d excessive he | ammable/explosive vapor-ai eat and light. | mixture. | |
| ncompatible materials: | Stror | ng oxidizing ag | | | |
| lazardous Decomposition Pro | ducts: NO d | ata available | | | |
| 11. TOXICOLOGICAL INFO | RMATION | | | | |
| | | | | | |
| Acute Toxicity: No data available | | | | | |
| Skin corrosion/irritation: No data available | | | | | |
| Serious eye damage/irritation: No data available | | | | | |
| Respiratory or skin sensitizatio No data available | on: | | | | |
| Germ cell mutagenicity: No data available | | | | | |
| Carcinogenicity: | | | | | |
| No data available | | | | | |
| IARC: No data available | | NTP: | No data available | OSHA: | No data available |
| Reproductive toxicity: No data available | | | | | |
| Routes of Exposure: Symptoms related to exposure | | ation, Eye cor | ntact, Ingestion, Skin contact | | |
| | . Skin contact ma | y result in infla | ammation; characterized by it | ching, scaling, reddeni | ng, or occasionally blistering. Eye |
| No specific information available; Target organ(s): | | tact may resu ata available | It in irriatation. May be harm | ful if inhaled or ingeste | d. |
| 12. ECOLOGICAL INFORM | ATION | | | | |
| Ecotoxicity | | | | | |
| Fish: | No d | ata available | | | |
| Crustacea: | ••• | ata available | | | |

Persistence and degradability: Bioaccumulative potential (BCF): Mobility in soil: Partition coefficient: n-octanol/water (log Pow) Soil adsorption (Koc): Henry's Law: constant (PaM³/mol)

No data available No data available

No data available No data available No data available No data available

12. ECOLOGICAL INFORMATION

| 13. DISPOSAL CONSIDERATIONS | |
|-----------------------------|---|
| Disposal of product: | Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil. |
| Disposal of container: | Dispose of as unused product. Do not re-use empty containers. |
| Other considerations: | Observe all federal, state and local regulations when disposing of the substance. |

14. TRANSPORT INFORMATION

| DOT (US) UN number: UN2733 | Proper Shipping Name: Amine, flammable, corrosive, n.o.s. | Class or Division: 3 Flammable liquid | Subrisk(s): 8 Corrosive material | Packing Group: |
|----------------------------------|--|---|-------------------------------------|----------------|
| IATA UN number: UN2733 | Proper Shipping Name: Amines, flammable, corrosive, n.o.s. | Class or Division: 3 Flammable liquid | Subrisk(s): 8 Corrosive material | Packing Group: |
| IMDG UN number: UN2733 | Proper Shipping Name: Amines, flammable, corrosive, n.o.s. | Class or Division: 3 Flammable liquid | Subrisk(s): 8 Corrosive material | Packing Group: |
| EmS number: | F-E, S-C | | | |

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.

HMIS Classification:

Flammability:

Health:

Physical:

3

2

0

(ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

US Federal Regulations

| CERCLA Hazardous substance | and Reportable Quantity: |
|-----------------------------------|--------------------------|
| SARA 313: | Not Listed |
| SARA 302: | Not Listed |

State Regulations

State Right-to-Know

| Massachusetts | Not Listed |
|----------------------------|------------|
| New Jersey | Not Listed |
| Pennsylvania | Not Listed |
| California Proposition 65: | Not Listed |

Other Information

| NEPA | Rating: |
|--------|---------|
| 1111 7 | maning. |

Health:3Flammability:2Instability:0

International Inventories

WHMIS hazard class:

E: Corrosive material. B2: Flammable Liquid.

16. OTHER INFORMATION

16. OTHER INFORMATION

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TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective gogles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.